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ABSTRACT

To investigate whether certain sections of the newspaper could be used effectively in teaching critical reading and thinking skills to educationally disadvantaged adults, 29 students enrolled in a developmental reading class were instructed for eight weeks using specific newspaper articles to develop critical and analytical skills. A control group composed of 19 students followed the regular class outline. Although the experimental group showed a significant increase over the control group in inference skill development, no significant differences were found in the skill areas of assumption, interpretation, deduction, and argument. It was concluded that certain critical reading and thinking skills can be learned through a unified method of instruction. (Critical questions, propaganda devices, the sequence of articles, sample lesson plans, and skill outlines are appended.) (MAI)

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ED169479

THE EFFECT OF THE USE OF SELECTED NEWSPAPER ARTICLES IN THE TEACHING OF CERTAIN CRITICAL READING/THINKING SKILLS

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OF THE GRADUATE SCHOOL OF EDUCATION

OF

RUTGERS

THE STATE UNIVERSITY OF NEW JERSEY

BY

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ABSTRACT

The present study was designed to investigate whether certain sections of the newspaper could be used in teaching specific critical reading/thinking skills in an adult developmental reading class. A need for new materials and new techniques in the teaching of reading to educationally disadvantaged adults has been noted, and thus, the purpose of this study.

The general plan was to provide the experimental group with instruction in certain critical reading/thinking skills, with the newspaper providing the source of instructional material. A control group followed the regular class outline, but was periodically provided with newspaper articles that were used in the experimental group.

The subjects were 79 students enrolled in a developmental reading class in University College, Rutgers University. Students were drawn from the four campus sites of New Brunswick, Newark, Camden, and Jersey City. The students were admitted to University College as part of the Educational Opportunity Fund.

The experimental group was given instruction in critical reading/thinking skills using the newspaper articles for a period of eight weeks for approximately 50 minutes a week. Other course objectives were followed.

The evaluative instrument was the Watson-Glaser Critical Thinking Appraisal. A total score and five subtest scores were given for this test. Mean differences between the groups were not significantly different at the .05 level.

The statistical analyses were concerned with comparisons of the posttest mean scores between experimental and control groups. The t tests for differences between means of independent samples were used. Significant difference was found in the skill area of inference; but in the skill areas of assumption, interpretation, deduction, and argument, no significant differences were found.

The findings are in partial agreement with the main body of the reading literature. Most of the studies cited did indicate some improvement in critical reading ability after presenting a specific teaching method. In some studies, improvement was indicated only in teaching method. In some studies, improvement was indicated only in certain critical reading areas, just as was found in this study.

It was concluded, on the basis of the research results, that certain critical reading/thinking skills can be learned through a unified teaching method. However, perhaps a replication of this study using a larger population, longer period of instruction, and a different testing instrument will produce more positive results.

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CHAPTER I

INTRODUCTION

Finding new methods and materials to teach adults reading skills should be a continuous endeavor for educators on the college level. Particularly to adults in compensatory undergraduate evening programs is the use of different types of materials and methods imperative. Many of these students have been away from or have had brief experiences with formal education and lack the reading and writing skills to function successfully at the college level. Such students approaching this new educational experiment are apprehensive and insecure about everything they encounter--even the textbooks that are used for instruction, which in some instances are too difficult to teach the specific reading skills needed (Berger & Hartig, 1969). Thus, a textbook that is readable, familiar, interesting, and instructive is sought in the teaching of these adults.

The newspaper adheres to all the above criteria. It is the most widely and consistently read piece of literature published; it is contemporary and offers a variety of interesting material. The use of

newspapers in the teaching of various reading skills in the elementary and secondary school classrooms has been well documented. From the simplest skill of vocabulary development to the most complex skill of critical reading, the newspaper has served as a complete textbook (Baxter, 1951; Burke, 1966; DeBoer, 1950; Sailer, 1969; Varner, 1950). Little experimentation, with sound statistical evidence, however, may be found in the literature to support the use of newspapers as a tool for reading (DeBoer, 1950). This study examined the effects of using newspapers to teach a specific reading area--critical reading--to adults enrolled in the undergraduate evening developmental reading class.

Statement of the Problem

The purpose of this study was to determine whether sections of the newspaper could be used in teaching specific critical reading/thinking skills in an adult developmental reading class. The following hypotheses were formulated.

1. There will be no significant difference in students' critical thinking skills between the experimental and control groups when newspapers are used for instruction.

2. There will be no significant difference

in students' ability to draw inferences between the experimental and control groups when newspapers are used for instruction.

3. There will be no significant difference in students' ability to recognize assumptions between the experimental and control groups when newspapers are used for instruction.

4. There will be no significant difference in students' ability to make deductions between the experimental and control groups when newspapers are used for instruction.

5. There will be no significant difference in students' ability to make interpretations between the experimental and control groups when newspapers are used for instruction.

6. There will be no significant difference in students' ability to make evaluation of arguments between the experimental and control groups when newspapers are used for instruction.

Importance of the Study

Curricula, courses of study, methods and techniques of instruction should all be designed for the purpose of developing critical reading/thinking skills. No one can teach anyone "how to think." Educators can, however, aid individuals to recognize and be

sensitive to certain pitfalls, fallacies, and sources of error.

With the advent of special entrance requirements for minority students in colleges and universities, came also special programs designed to ensure survival in these schools. Remedial and developmental classes in all major disciplines are attempting to bridge the gap made by an impoverished educational background. Particularly in the area of reading has an abundance of new techniques been sought, since this is the area of greatest disadvantagement for minority group members. This study can perhaps satisfy both the needs of the adult student by finding a contemporary textbook that is not viewed with anxiety, and the needs of the instructor who must teach critical reading/thinking skills.

Definition of Terms

For the purpose of this study, terms are proposed and defined in the following manner.

Critical Thinking

The definition of critical thinking is the one constructed by Ennis (1962), "the correct assessment of statements" (p. 599). The assessment for Ennis involves the determination of whether to accept or reject a statement based on knowledge of the methods of inquiry

and reasoning. In this study, critical thinking and critical reading will be used synonymously, since a printed test and printed material are used to assess either one.

Inference

An inference is defined as a conclusion which a person draws from certain observed or supposed facts (Watson, Manual, 1964).

Assumption

An assumption is defined as something presupposed or taken for granted.

Deduction

A deduction is defined as the ability to reason from a given premise and the recognition of logical implication.

Interpretation

An interpretation is defined as the ability to weigh evidence and to discriminate among degrees of probable inference.

Evaluation of Arguments

Evaluation of arguments is defined as the ability to discriminate between strong and weak, important and irrelevant arguments.

Learning

Learning is operationally defined as improvement in critical thinking skills as evidenced by scores on the Watson-Glaser Critical Thinking Appraisal.

Developmental Reading

Developmental reading is defined as a sequential program aimed at continual growth in all of the basic and specialized reading skills at a pace commensurate with the personal capacity and achievement level of each student (South Penn School Study Council, 1961).

Limitations of the Study

The limitations of the study included the following points:

1. The student population was somewhat atypical for two reasons. The majority of the population was Black or of Hispanic background, and the majority of the population were women. For the Educational Opportunity Fund program at University College, however, this is the typical student population.

2. The number of participants and the analysis of data were relatively small for various reasons. Absences at the time of testing, excessive absences during the training period, and dropouts were contributing factors. The total number of students taking both the pretest and the posttest was less than the

number of students in both groups at the beginning of the study. The results of the study must be viewed with the above limitations in mind.

Summary of the Chapter

This chapter discussed the importance of developing materials and methods for the teaching of critical reading and thinking on the college level, with emphasis on the disadvantaged adult student. The newspaper was noted as one method that could be used in teaching critical reading to these students. Critical thinking, inference, assumption, deduction, interpretation, evaluation of arguments, learning, and developmental reading were defined. Limitations of the study were listed.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter will deal with the literature relevant to my study. The various definitions and skills of critical reading and critical thinking will be surveyed. The relationship between reading and thinking will be discussed, and the effective methods of teaching critical reading and critical thinking will be observed.

Definitions of Critical Reading and Critical Thinking

Definitions of critical reading and critical thinking vary, tending to expand as writers reach for clarification of the exact nature and components of critical reading and critical thinking. Edward Glaser's (1941) definition of critical thinking is viewed by many researchers as the guiding light in conducting experiments in the area of critical thinking. Glaser states that the ability to think critically involves three things: (a) an attitude of being disposed to consider in a thoughtful way the problems and subjects that come within the range of one's experiences, (b) knowledge of the methods of logical inquiry and

reasoning, and (c) skills in applying those methods. Glaser emphasizes the attitude involved in critical thinking.

Ennis (1964) lists critical thinking as the "correct assessing of statements" (p. 599) implying that there can be good and bad critical thinking. Burton, Kimball, and Wing (1960), in their textbook that is devoted to the teaching of thinking in education, include with their definition of thinking the notion of criticalness. For them, thinking involves the critical, reflective search for valid conclusions which solve problems, resolve our doubts, and enable us to choose between conflicting statements of doctrine and policy.

Eller and Wolf (1966), in their comprehensive overview of research dealing with critical reading, define critical reading ability as the cluster of skills involved in evaluation of the validity, accuracy, or intellectual worthwhileness of a unit of printed matter. They emphasize that this definition excludes the critical analysis of a piece of literature for its artistic value. Betts' (1957) definition of critical reading states that critical reading "is done when the reader analyzes the material which he reads and questions the validity of inferences drawn" (p. 17).

William Kottmeyer (1944) differentiates between

critical and assimilative reading. Assimilative reading enables the reader to receive the ideas conveyed on the printed page, to understand them, and to make them his own; whereas, critical reading involves additional mental activity over and beyond the assimilation of ideas. Kottmeyer further states that critical reading is independent thinking; assimilative reading is receiving and absorbing the thinking of others.

Perhaps a statement by Durrell (1958) would best conclude this section and introduce the next.

> There is no single definition of thinking satisfactory for research or teaching purposes. Thinking seems to embrace many types of mental tasks, and since most definitions are ambiguous or elusive, it appears necessary to give illustrations and examples in order to make clear the type of thinking task being taught or measured. (p. 89)

Thus, some authors, instead of defining critical reading or critical thinking, present the skills or abilities that should be developed by the critical reader/thinker. Anderson, Marcham, and Dunn (1944) list seven skills: (a) identifying specific facts, (b) selecting relevant facts, (c) organizing facts in terms of meaningful subtopics, (d) arranging subtopics in logical order, (e) making inference from specific facts and from trends, (f) distinguishing between fact and opinion, and (g) recognizing situations in which insufficient evidence makes it difficult or impossible to draw a clear-cut conclusion. Anderson was

particularly interested in developing these skills in the field of social studies.

Crossen (1948), in her experiment concerning attitudes of the reader affecting critical reading ability, cites four steps in critical reading: (a) gaining a clear and correct grasp of the sense meaning of the selection read; (b) gaining an accurate perception of relationship, both expressed and implied; (c) evaluating precisely the content as to its validity, comprehensiveness, accuracy, and usefulness to the reader's purpose; and (d) drawing correct conclusions and making valid inferences from what is read. Both Crossen and Anderson list the making of inferences and the drawing of correct conclusions as important skills in critical reading.

Robert H. Ennis (1964) lists nine areas that characterize the critical thinker. These were used as guidelines in developing the Cornell Critical Thinking Test (1961), an extensive study in critical thinking conducted by the Critical Thinking Project at the University of Illinois. Ennis' areas of critical thinking include: (a) recognizing that a statement is reliable, (b) recognizing that a statement follows from the premise, (c) noting that a single generalization is warranted, (d) noting a hypothesis is warranted, (e) recognizing that a statement is an

assumption, (f) recognizing that an argument depends on an ambiguity, (g) noting that a statement is over-vague or overspecific, (h) observing that an alleged authority is reliable, and (i) recognizing that a theory is warranted.

David H. Russell (1963) cites three factors involved in critical thinking: (a) the attitude factor--checking on the assumption of the author, (b) connotative or action factor--may include significant works or phrases in a statement, identifying emotion and bias, picking out stereotypes and cliches, and (c) judgment factor--evaluating in terms of some norm or standard or consensus, distinguishing the relevant and irrelevant, assessing literary merit, and looking for evidence in any conclusion drawn by the speaker.

Flanigan (1966) contends that knowledge of semantics, with correct application of principles and techniques, is all that is needed for critical reading. The semantic areas Flanigan lists are: (a) determining the connotative value of words--an area that Russell had listed, (b) distinguishing reports and judgments, (c) determining the referent or referents for abstract symbols, (d) recognizing logical fallacies and generalizations presented with or without support, and (e) discovering the author's purpose.

Tyler (1930) suggests eight abilities that

should be measured by the test makers of critical thinking: (a) ability to perceive relationships in data, (b) ability to recognize limitations of data, (c) ability to make comparisons, (d) ability to see elements common to several items of data, (e) ability to recognize prevailing tendencies or trends in the data, (f) ability to recognize the limitations of given data even when the items are assumed to be dependable, (g) ability to evaluate the dependability of data, and (h) ability to formulate hypotheses.

John J. DeBoer (1945) views critical reading as involving: (a) the search for relevant material--an area noted by Tyler, (b) the evaluation of the data, (c) the identification and comparison of sources--an area noted by Tyler, (d) the synthesis of the findings, (e) the capacity for suspended judgment--an area listed by Flanigan, (f) the interpretation of the writer's motive--an area noted by Tyler, and (g) sufficient background of knowledge to provide a sound basis for judgment. DeBoer is further concerned with the need of establishing criteria by which the reader can be guided. Certain guidelines and standards of judgment must be formulated in order to serve as a basis of comparison in what is read.

The literature and research abounds with the listings of skills or component abilities that are

involved in critical reading/thinking. Some skills overlap, while others are unique to a particular situation. The listing of skills is varied because as noted the definitions are varied, and in most cases the skills are based upon the author's own definition of either critical reading or critical thinking.

Even though varied, the listings of skills do support Ennis' definition of critical thinking--the correct assessment of statements through knowledge of logical reasoning and inquiry. For knowledge and application of the different skills will result in the correct evaluation of written statements.

Relationship Between Reading and Thinking

Early studies in the area of reading, particularly reading comprehension, indicated that researchers had to concern themselves with the idea that reading was more than the understanding of individual words. Some researchers went beyond their initial problems to elucidate the close relationship that exists between reading and thinking.

Edward L. Thorndike (1917) was perhaps the first to investigate the notion that reading is a very elaborate procedure. In his analysis, reading involved a weighing of each of many elements in a sentence, their organization in the proper relations one to

another, the selection of certain of their connotations and the rejection of others, and the cooperation of many forces to determine final response. He presented a sample paragraph, with questions concerning the paragraph, to 200 pupils in Grade 6. Thorndike noted that the responses to the questions on the paragraphs could not be placed in a few clearly defined groups. Various types of wrong answers were observed. Three mechanisms seemed to have been all that was needed to explain the errors in thinking: underpotency or overpotency of elements--too much or too little emphasis to specific words or word groups; dislocation of elements--certain word elements placed awkwardly; and wrongness or inadequacy of connections. Thorndike concluded that the reading of a textbook or reference should not be considered a mechanical, passive, or undiscriminating task, but one in which reasoning and thinking was obvious.

Specific errors in the reading of directions were also found by Robert P. Carroll (1926). He was interested in ascertaining to what extent the ability in the reading of directions may be improved by specific practice, to discover some effective method of teaching reading, and to determine difficulties in the reading of directions. Three experiments, using over 400 seventh- and eighth-grade students, were conducted

using different types of directions. The results showed that by special training, pupils made a great deal of improvement in reading directions. The groups that were given daily practice made an average gain of 60.24% in the area trained. Carroll, just as did Thorndike, found the following factors which produced errors in reading: (a) sentences that involved slight mathematic calculations, (b) prepotent factors in the questions or reading material--"prepotent" meaning the introduction of familiar facts not included in the reading material, (c) sentences containing conditional clauses, (d) sentences that are too compact or too involved, (e) material containing ideas not clearly stated but merely implied, and (f) a lack of the habit of carefully reasoning things out. Thus, Carroll and Thorndike found problems within certain types of reading selections; and these reading problems were a result of students not clearly understanding a selection because of unclear thinking.

Another early study that demonstrated the close relationship between reading and thinking was that conducted by Ralph W. Tyler (1930). He was concerned with the testing of particular objectives in the elementary courses of zoology at Ohio State University; one specific objective was the drawing of inferences from facts. Two methods were used in the experiment:

one in which students had to supply their own inferences from a set of facts presented, and the other in which students had to choose the correct inference from a choice of five inferences. The test items were the same in both methods; the difference was in the ability required of the student. When the results of the first test were correlated with the results of the second, the coefficient obtained was only .38. This indicated that there was some relationship between the tests, but by no means high enough for the multiple-response test to be used in place of the first test. The experiment actually dealt with the construction of a valid and reliable test that would measure the ability of zoology students to propose inferences, but also demonstrated that students could not draw inferences from selected reading materials. The students were not able to "think through" the reading for the inferences.

Results similar to Tyler's were found by Joseph C. Dewey (1935). He found that there was a significant difference in children's ability to secure facts and the ability to do inferential thinking.

Roma Gans (1940) found in her study of fourth-, fifth-, and sixth-grade children that critical reference type reading involves some of the same skills (or elements) as the more common type of reading usually measured by reading comprehension tests, but differs

from it in certain important aspects. She demonstrated that the ability to read with comprehension does not necessarily signify the ability to discriminate between relevant and irrelevant material. Students with high ability to comprehend what was read often were quite unable to read selectively in order to solve problems.

Edward Glaser's (1941) study is viewed as a textbook in the area of critical thinking. The purpose of Glaser's study was: (a) to make available illustrative teaching procedures which could be used effectively by high school and college teachers to stimulate growth to think critically, (b) to evaluate the effectiveness of these materials and teaching procedures, and (c) to ascertain whether or not there is a relationship between critical thinking and certain other factors such as intelligence, reading ability, patterns of interest-values, home background, and sex. Glaser admits, however, that initially he did not fully appreciate the relationship between reading ability and ability to think critically. Accordingly, he conducted a separate experiment to determine this relationship.

Both the Martin Reading Comprehension Test--a test that measures some but not all of the critical reading skills, and the Watson-Glaser Tests of Critical Thinking--a test of critical thinking, were administered to an average and superior 12th-grade English class.

From data collected, Glaser concluded that the abilities measured by the Martin test of critical reading are highly correlated with the abilities measured by the test of critical thinking. The ability to comprehend language with accuracy and discrimination was measured by both the Martin and Watson-Glaser tests.

Betts (1956) summarized three doctoral dissertations that dealt with reading comprehension in relation to comprehension in science and social studies. From the three studies, Betts stated that the following conclusion may be considered valid: "there is a high degree of specificity in the types of thinking required in different reading situations" (p. 9).

Gray (1937) states at the Second National Committee on Reading:

> Any conception of reading that fails to include reflection, critical evaluation, and the clarification of meaning is inadequate. It recognizes that this very broad use of the term implies that reading included much that psychologists and educators have commonly called thinking. (p. 23)

To further clarify his definition of critical reading, Kottmeyer (1944) notes that this type of reading is actually thinking. The mind, when engaged in critical reading, should be able to

> judge, compare, evaluate, and criticize without the disruption of such mechanical interferences as difficulties of word recognition, word-by-word reading, unco-ordinated eye movements, and so forth. (p. 557)

Roma Gans (1940), in her review of literature, states:

> The problem . . . is not a study of comprehension-involving-thinking as compared with comprehension-not-involving thinking, for opinions expressed in the literature seem to agree that where there is comprehension there must be thinking--to comprehend without thinking is an impossibility. (p. 9)

From the studies cited, a clear relationship does exist between reading and thinking. Particularly in the type of reading that calls for more than a literal interpretation of material. In situations that require the evaluations rather than the finding of facts, thinking is being done.

Methods of Teaching Critical Reading and Critical Thinking

Robert P. Carroll (1931) states:

> While in general the habit depends upon practice, the ability to reason with reference to a given problem or situation depends upon a knowledge of the elements of the problem or situation. (p. 370)

For him, reasoning is largely a matter of habit--but before the habit is perfected, instruction in logical reasoning must be administered.

Robert Stauffer (1959) echoes these same words when suggesting that a structured, unified plan can be developed for the teaching of reading as a thinking process. Training in how to think and read critically is the only way in which these skills will be learned.

Glaser (1941) was one of the first to present

a unified plan that would teach certain critical thinking skills. The main emphasis in his study was upon the development of teaching procedures and illustrations of learning situations which might be immediately useful to the classroom teacher. He found a significant gain in critical thinking test scores after a 10-week period using lesson units geared to the teaching of critical thinking. Teachers in the four experimental groups were given Lesson Outlines in five comprehensive units: (a) Language and Clear Thinking, (b) Generalization and Probable Inference, (c) Critical Thinking and Scientific Method, (d) Prejudiced and Confused Thinking, and (e) Propaganda and Public Opinion. The main emphasis in his study was upon the development of teaching procedures and illustrations of learning situations which might be immediately useful to the classroom teacher.

Another detailed, unified plan was constructed by Arnold Jewett (1940). Jewett, however, was concerned with the teaching of propaganda techniques, which he considered to be found in any critical reading situation. Specifically, he wanted to discover whether students who were taught material on the nature and techniques of propaganda learned to generalize more carefully, learned to distinguish between strong and weak arguments, and learned to judge the

probable truth of inferences drawn from given statements of fact. The subjects were high school juniors and seniors who initially were taught the different propaganda techniques through investigation of advertisements. A transition from this study of propaganda techniques to the study of propaganda devices about political and social issues was made at the beginning of the second week. Later, students were taught to read a newspaper critically and were taught to evaluate a current events article.

The second half of the study, after a two-week interval in which the regular curriculum was followed, was a review of techniques with emphasis in various kinds of strong and weak arguments. At the end of the five weeks, posttests of the Jewett Propaganda Test and three tests published by the Institute for Propaganda Analysis were administered. Significant gains on all four tests were recorded by Jewett after the unit on propaganda analysis was completed.

Anderson, Marcham, and Dunn (1944) developed experimental materials for teaching specific skills of critical thinking to fifth- and tenth-grade social studies students. Five problems were developed for each grade level, with each of the problems having two forms: "doing" and "telling." In the "telling" method, a reading selection was provided; and the way in which

the instructor would proceed in analyzing this content was explained in detail. In the "doing" method, pupils were left comparatively free to study and analyze the content as they saw fit. In the teacher's manual, however, recommended procedures were suggested for the doing type of problems.

Two objective type tests were developed at each grade level to measure the skills stressed. The final data indicated that gains had been made by both groups in the critical thinking areas--particularly in the skill areas of making inferences and drawing conclusions.

For Winston Brembeck (1949), developing and teaching a course in argumentation was the best plan for fostering critical thinking. From analysis of scores on the Watson-Glaser Test of Critical Thinking, Brembeck reported that a semester's course in argumentation did improve critical thinking ability. Brembeck, also, noted that students who had one or more year's experience in debating scored significantly higher on the pretest than students who had no such training. Those who had no training, however, showed a slightly greater gain in critical thinking than those who did have such training.

The findings of Brembeck (1949) were partially supported by Waller, Haubrich, and Reid (1963) who

were also interested in teaching critical thinking using the principles of logic and argumentation. Students were taught a unit in critical thinking followed throughout the year by application to the content of the course. The unit on critical thinking covered the following: definition--abstract and concrete, logical fallacies, deductive principles, and inductive principles.

The experiment was conducted for two consecutive years, after which posttests were administered to the two experimental groups and one control group. Waller et al. concluded that the effectiveness of the program was not unequivocally demonstrated, since one of the tests to assess this change did not show any difference between the experimental and control groups. They contend, however, that the other test did show differences in favor of students who received the revised curriculum.

Brownell (1953) trained ninth-grade students in different areas of reading in social studies. Brownell wanted to demonstrate that general training in reading in social studies would produce significant gains in the ability to think critically, and also, that significant gains in critical thinking scores would be made by those students who showed a "high" gain in reading skills. The training in reading was based on

student needs and attainments, as evidenced by the scores on the Progressive Achievement Test: Reading. Materials normally used for the course were used by the experimental group and also special materials based on or related to the course content were developed. The instruction approximated two hours a week of a possible 10 class hours; and the instruction lasted for 28 weeks. At the end of the 28 weeks, the pupils in both the experimental and control groups were re-tested on reading with the Progressive Achievement Test: Reading, and on critical thinking with the Watson-Glaser Critical Thinking Appraisal.

The data indicated that those students who demonstrated a better than average improvement in reading made accompanying gains in the ability to infer and the ability to recognize assumptions. Brownell, however, does caution that the data do not provide conclusive evidence that the significant gains were caused by the training in reading alone. He does suggest that secondary school pupils can demonstrate gains in more mature types of interpretation, critical reaction, and reasoning as the result of a properly designed developmental reading program.

Livingston (1965) was interested in determining if a study of general semantics would improve the critical reading level of students. There were six

10th-grade English classes, three control classes, and three experimental classes. The Watson-Glaser Critical Thinking Appraisal (WGCTA) was administered to both groups prior to the instruction. All the English teachers devoted two full periods a week for five weeks to instruction in selected principles and techniques of general semantics. The teachers used no prescribed methodology for the teaching of semantics, but these areas in semantics had to be taught: abstracting process, Is of identity, Is of projection, inferences, reports, two-valued orientation, judgments, indexing, dating, puotation marks, and referential and emotive functions of language.

After five weeks of instruction, the Watson-Glaser Critical Thinking Appraisal was administered; and significant gains were made by the experimental group. Thus, Livingston inferred from the data that the students' critical reading ability improved as a result of instruction in general semantics.

Kottmeyer (1944) was concerned with developing reading activities and materials for the teaching of certain reading skills in the upper-elementary school level. One area that was identified was critical reading and three units used in teaching critical reading were found to be beneficial. The three units were: propaganda analysis, reading of newspaper

editorials, and the interpretation of newspaper cartoons.

The seven basic propaganda devices were identified, and application of the devices was made to advertising material in current magazines. Editorials were taken from local newspapers that would hold the students' interest for several weeks. The editorials were mounted in a folder; and, where necessary, annotations were made by the teacher. Students had to read the editorial silently and then had to answer questions which were both assimilative and critical in nature. Political and social cartoons that involved problems of objective thinking were taken from local newspapers. The cartoons were mounted in folders; and, where necessary, some factual background information on the topic was made by the teacher. After observing the cartoon and reading the background information, questions on the cartoon were to be completed. The questions were designed to determine if the student correctly understood the message of the cartoon and if the student had any reaction about the cartoon.

Kottmeyer felt that the units were of service to the superior student, since they have already demonstrated mastery in assimilative reading. No objective tests, however, were administered in this experiment to either support or refute Kottmeyer's feelings.

Kay (1946), Boyan (1972), Stauffer (1959), and Flanigan (1966) present different methods and materials of teaching critical reading and thinking at various grade levels; however, no type of controlled experimentation was conducted to determine the effectiveness of these methods and materials.

The methods and approaches described in teaching critical reading and critical thinking vary according to the author's definition of critical reading and critical thinking and the accompanying skills outlined by them. Most of the studies cited used high school populations; one study used a college population, and one used an elementary school population. All, however, demonstrate that specific, controlled instruction with a definite plan does lead to the learning of certain critical reading and critical thinking skills.

Summary

As noted previously, Thorndike (1917) was the first researcher to propose that reading was a complex process and involved thinking. From his initial experiment, Thorndike demonstrated that reasoning and thinking were definite parts of the reading act. Educators then began to look at a certain type of thinking involved in reading--that of critical thinking in reading. Definitions and skills involved in this

critical thinking in reading were then outlined and used as bases of other research. The definitions and skills varied, but the obvious importance of teaching these critical skills was not questioned.

Thus, much of the research done of late in the area of critical thinking concerns itself with methodology. Most of the literature examined by the researcher used elementary or high school students and used a variety of printed material. This researcher was interested in developing lessons in critical reading/thinking for a college population. Specifically, the present study examined the effects of using certain sections of the newspaper in teaching specific critical reading/thinking skills in an adult developmental reading class.

CHAPTER III

METHOD

This chapter describes the population, the method of instruction, the materials, the selection and description of test, the design of the study, and the analysis of data used in the study.

The Population

Subjects

The subjects consisted of 79 students enrolled in a developmental reading class in University College at Rutgers University. University College is the adult evening degree-granting college at Rutgers. The subjects were admitted to University College as part of the Educational Opportunity Fund, which was instituted in 1970 as a means of ensuring minority group members an easier access to college, particularly to adults who have been away from a formal educational environment for a long period of time. One of the required courses for students in this program is this developmental reading course, which teaches reading skills necessary for survival in a college situation.

The students and classes were chosen from four Rutgers sites: New Brunswick, Newark, Jersey City,

and Camden. Of the initial 79 students who were administered the pretest of the Watson-Glaser Critical Thinking Appraisal, 48 took the posttest: 19 students in the control group and 29 in the experimental group. Two male students and 17 female students comprised the control group; 3 male students and 26 female students comprised the treatment group. Sixteen Black, 0 White, and 3 Hispanic students comprised the control group; 25 Black, 3 White, and 0 Hispanic students comprised the treatment group. The large number of female subjects is characteristic of the EOP population at University College, with 85% of the students being female in the 1974-1975 school year. The age range of the students was from 18 to 54 years. The average age was 26.

Randomization

In the Jersey City and Newark sites, enough students had registered for the reading course to make two separate reading classes. The students were randomly assigned to the two classes by drawing names from a container. The first name drawn was assigned to the experimental group; the second name was assigned to the control group, and so on until all names were drawn and assigned.

In the New Brunswick and Camden sites, there

were enough students registered for the reading course to form only one class. Thus, students within the class were randomly divided into treatment group and control group. The first name drawn from the container was assigned to the experimental group; the second name was assigned to the control group, and so on until all names were drawn and assigned. In these two sites, the control group worked on assignments given by the instructor while the treatment group was presented the treatment by the instructor.

Random assignment of instructors in the Jersey City and Newark sites was achieved by flipping a coin. The head of the coin was designated the treatment group; the tail of the coin was designated the control group. The first name drawn was given the head of the coin; the second name drawn was given the tail of the coin. The flip of the coin determined which instructor was assigned to either the treatment class or the control class.

Instructors

All six instructors involved in the study were female. Two instructors for the treatment were Black; two were White. Both instructors for the control were White. All instructors held Master's degrees. Three held M.Ed.'s in Reading, two held M.Ed.'s in English

Education, and one held a M.S. in Psychology of Reading.

Method of Instruction

Preparation of Instructors

Approximately one week before the Spring Semester, 1975, all instructors participating in the study were informed of the purpose and nature of the experiment to be conducted. At this time, no one knew to what group the different instructors would be assigned; thus, the orientation was general in content. The purpose of the study, the type and description of materials to be used, and the expectations of instruction were indicated to all instructors.

When the instructors were assigned to the experimental group, all necessary materials and directions were given and explained again in detail. Instructors in the control group were also given, at various times, newspaper articles to use in class.

The investigator was able to observe all of the experimental groups during the treatment period at least twice, except Camden, where the investigator only observed once. The observations were generally no more than 10 minutes in length. The investigator merely wanted to note if the instructor actually was presenting the treatment. From what the investigator could observe, the instructors were adhering to the

prescribed lesson outline and the sequence of articles.

Training Procedures

The reading classes met once a week for approximately two hours and 30 minutes in the Spring Semester, 1975. The second meeting (week) of class, the Watson-Glaser Critical Thinking Appraisal Form YM was administered to both the control and experimental groups by the instructors. The students were instructed to perform to the best of their ability and that the scores would not be a part of their course grade; the instructors merely wanted additional information on this type of reading skill.

After the testing, in each experimental group the instructor distributed copies of Critical Questions and Propaganda Devices which would be needed for the examination of all newspaper articles. The instructor elaborated on the content of these critical questions and propaganda devices. Students were then given copies of the first two newspaper articles that were to be read and examined for the next class meeting. Instructors emphasized that for each newspaper article, the student should attempt to write a brief summary (what is the author saying?), answer the Critical Questions, and examine for propaganda devices.

For each class meeting, the newspaper articles

were reread and then examined by the class. The instructor was given a detailed Lesson Outline for each newspaper article based on skills listed in Appendix F. "Sequence of articles for critical reading/thinking skills" was given to the instructor indicating the approximate amount of time and the sequence in which the articles were to be studied.

The same reading assignments taken from the newspaper were used in the control groups to minimize the situation of the experimental groups realizing that they were part of an experiment. In the New Brunswick and Camden sites, the control groups were not present when the treatment was given to the experimental group. The control groups worked in another room.

The instruction continued for eight weeks, from the week of February 10, 1975 through the week of April 14, 1975. One week during this period, classes did not meet because of Spring Recess. During the week of April 14, 1975, the WGCTA Form ZM was administered to both the experimental and control groups.

Materials

Description of Lesson Outline

Instructors involved in the treatment were given a detailed Lesson Outline to follow for each news

article. The Lesson Outline was given far enough in advance for the instructors to have read the article and to have become familiar with the critical reading/thinking skills to be studied.

The Lesson Outline consisted of three parts: (a) a summary of the article, (b) the application of critical questions to the article, and (c) an analysis of one or more critical reading/thinking skills. The summary of the article was based upon a literal interpretation of the article. By answering the question: "What is the author saying?" a brief written summary could be constructed. Most of the summaries were a paragraph in length. An example may be found in Appendix E.

The Critical Questions were based on a list of nine questions developed by Burton (1960, p. 13). The questions were designed to direct the reader beyond the literal interpretation to that of a more critical interpretation of the article. Students were given a copy of Critical Questions and were expected to apply these to the articles after reading. These questions were then discussed in class. The Critical Questions are listed in Appendix B.

The critical reading/thinking analysis focused on the examination of specific critical reading/thinking skills. The specific skills are listed in Appendix F.

For the study of inference, strong and weak arguments, implicit and explicit assumptions, reasoning from given premises (deduction) and judging of evidence, the style and format of the questions and statements for these skill areas were similar in construction to those found in the WGCTA. The study of propaganda devices was based on the seven propaganda devices outlined by the Institute for Propaganda Analysis (Lee, 1939). The study of emotionally toned words was based on readings by Thouless (1932) and Burton (1960, pp. 186-189). The study of errors and fallacies in deductive arguments was based upon a comprehensive outline developed by Burton (1960, pp. 215-223).

The first part of the critical reading/thinking analysis gave a definition of the skill area to be examined. The second part gave statements or questions about the skill areas to be applied to the news article. The statements and questions were developed from the news article. Students had to respond to these statements and questions in terms of what they learned about the skill area and what was stated in the news article.

It was suggested by the investigator that the questions or statements be written on a blackboard for students to either copy in their notes or refer to during the study of a particular news article.

Examples of two lesson outlines are presented in Appendix E.

Selection and Description of Newspaper Articles

The news articles used in this study were taken from the Home News and the Newark Star-Ledger. The articles were selected by the experimenter. An article was chosen first for its applicability to one or more of the critical reading/thinking skills, and second for its content, whether the content would be of especial interest to the students.

Seventeen articles were used; 9 articles taken from the Home News and 8 articles taken from the Star-Ledger. Six articles were letters to the editor; 3 articles were editorials; 3 articles were syndicated columns; 2 articles were front-page items; 2 articles were news items that were not front page but were applicable to critical analysis; and 1 articles was a theater review. The reading levels of the 17 news articles ranged from eighth grade to college.

Selection and Description of Newspapers

The Home News and the Star-Ledger were the two newspapers from which the articles came for teaching critical reading. The Home News is printed Monday through Sunday, having a more comprehensive edition

on Sunday. The readership of this paper is restricted to the three counties of Middlesex, Somerset, and Union; and has an approximate circulation of 68,000 for the Monday through Saturday editions and 75,000 for the Sunday edition. Because its readers are located within a small geographical area, the paper is geared to presenting news stemming from or relating to this area. State, national, and international news are reported, but not as incisively as its local news.

The Star-Ledger is printed daily Monday through Saturday with a more comprehensive edition on Sunday. Newark is the third largest city in New Jersey; and, thus, this paper has a large readership. The paper serves 10 counties: Bergen, Essex, Hudson, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, and Union. The circulation for the Monday-through-Saturday editions is 386,992 and for the Sunday edition 622,203. The paper is concerned primarily with the covering of national news with complete coverage of local news.

Using the Fry Readability Formula (Fry, 1965), the reading levels of various articles selected from the Home News ranged from 8th grade to 12th grade. The reading levels of various articles selected from the Star-Ledger ranged from ninth grade to college.

Selection and Description of Test

Critical Thinking Test

The Watson-Glaser Critical Thinking Appraisal Forms YM and ZM (Watson & Glaser, 1964) were administered as the pretest and posttest of critical thinking ability. The test includes five subtests designed to measure different, though interdependent, aspects of critical thinking. Each form contains 100 items that can be completed in about 50 minutes. There is no rigid time limit, since the test is viewed as being a test of power rather than speed (Watson & Glaser, p. 2, Manual). The five subtests are: Test 1: Inference; Test 2: Recognition of Assumption; Test 3: Deduction; Test 4: Interpretation; Test 5: Evaluation of Arguments. These five areas are seen by the authors as correlating highly with other tests having different component abilities of critical thinking. A copy of the test may be found in Appendix A.

Helmstadter (Buros, 1972), in his review, states that the WGCTA is an excellent measure for those who claim their instruction results in the "ability to think" rather than simply the acquisition of subject matter (p. 784). Crites (Buros, 1972) adds that the test appears to measure not only general intelligence but also certain logical reasoning abilities (p. 784). Its internal consistency is high and its concurrent

validity is acceptable. Helmstadter and Crites both noted, however, that no predictive coefficients are given.

Design of the Study

The pretest-posttest control group design was used in this study. The design is diagrammed below with explanation.

$$R \quad O_1 \quad X \quad O_2$$

$$R \quad O_3 \qquad O_4$$

The experimental group was given a pretest of the Watson-Glaser Critical Thinking Appraisal, a treatment of critical reading/thinking exercises using the newspaper, followed by a posttest of the same critical thinking test.

The control group was given a pretest and posttest of the Watson-Glaser Critical Thinking Appraisal, but continued with the regular developmental reading program outlined by the instructor. However, reading assignments taken from the newspaper were used periodically in the control group.

Statistical Analysis

The statistical analyses were concerned with comparisons of posttest mean scores between experimental

and control groups. Differences between means were tested by means of the *t* test for independent samples.

Analysis of covariance was to be the original type of statistical analysis performed on the data; however, the simpler *t* test was used instead. Therefore, the pretest scores were not used.

CHAPTER IV

FINDINGS AND DISCUSSION

The purpose of this study was to determine whether sections of the newspaper could be effectively used in teaching specific critical reading/thinking skills in an adult developmental reading class. The results of this investigation will be presented and discussed. Comparisons will be presented between posttest scores of the experimental and control groups. The results will be examined and related to pertinent studies reported in Chapter II.

Hypotheses

The first hypothesis states that there will be no significant difference in students' critical thinking skills between experimental and control groups. The posttest mean score for the experimental group was 47.51, the SD 10.66; the posttest mean score for the control group was 47.73, the SD 7.07. The scores are reported in Table 1.

The t value obtained was -.17. This was not statistically significant at the .05 level. Therefore, the first null hypothesis was not rejected. There

TABLE 1

t TESTS OF DIFFERENCES BETWEEN SCORES OF THE EXPERIMENTAL AND CONTROL GROUPS ON THE WATSON-GLASER CRITICAL THINKING APPRAISAL

Test	Experimental Group (N = 29)		Control Group (N = 19)		
	M	SD	M	SD	t
Total	47.51	10.66	47.73	7.07	-.17
Inference	6.89	2.70	5.42	2.56	1.89*
Assumption	9.31	2.22	9.47	1.57	-.28
Deduction	12.89	3.18	14.47	3.32	-1.65
Interpretation	11.41	4.80	10.52	3.32	.70
Argument	7.65	3.80	7.89	2.42	-.24

*$p < .05$.

was no significant difference between the experimental and control groups.

The second hypothesis states that there will be no significant difference in students' ability to draw inferences between experimental and control groups. The posttest mean score for the experimental group was 6.89, the SD 2.70; the posttest mean score for the control group was 5.42, the SD 2.56. The scores are reported in Table 1.

The t value obtained was 1.89. This was statistically significant at the .05 level. Therefore, the second null hypothesis was rejected. There was a significant difference between the experimental and control groups.

The third hypothesis states that there will be no significant difference in students' ability to recognize assumptions between experimental and control groups. The posttest mean score for the experimental group was 9.31, the SD 2.22; the posttest mean score for the control group was 9.47, the SD 1.57. The scores are reported in Table 1.

The t value obtained was -.28. This was not statistically significant at the .05 level. Therefore, the third null hypothesis was not rejected. There was no significant difference between the experimental and control groups.

The fourth hypothesis states that there will be no significant difference in students' ability to make deductions between experimental and control groups. The posttest mean score for the experimental group was 12.89, the SD 3.18; the posttest mean score for the control group was 14.47, the SD 3.32. The scores are reported in Table 1.

The t value obtained was -1.65. This was not statistically significant at the .05 level. Therefore, the fourth null hypothesis was not rejected. There was no significant difference between the experimental and control groups.

The fifth hypothesis states that there will be no significant difference in students' ability to make interpretations between experimental and control groups. The posttest mean score for the experimental group was 11.41, the SD 4.80; the posttest mean score for the control group was 10.52, the SD 3.32. The scores are reported in Table 1.

The t value obtained was .70. This was not statistically significant at the .05 level. Therefore, the fifth null hypothesis was not rejected. There was no significant difference between the experimental and control groups.

The sixth hypothesis states that there will be no significant difference in students' ability to

evaluate arguments between experimental and control groups. The posttest mean score for the experimental group was 7.65, the SD 3.80; the posttest mean score for the control group was 7.89, the SD 2.42. The scores are reported in Table 1.

The t value obtained was -.24. This was not statistically significant at the .05 level. Therefore, the sixth null hypothesis was not rejected. There was no significant difference between the experimental and control groups.

Discussion

In the skill areas of recognizing assumptions, making interpretations, evaluating arguments, and deduction, the t values were all below the criterion required for statistical significance at the .05 level of confidence. Therefore, it was assumed that no real difference existed between the experimental and control group in these areas, thus indicating that the treatment--the instruction using the newspaper--was not effective. These results would then support the null hypotheses stated for these four skill areas.

Most of the literature cited did report significant gains in critical reading or critical thinking skills using varied teaching methods and techniques. In this investigation, the subtest of inference of the WGCTA was the one skill area in which a significant

difference was found. Anderson (1944) also found significant gains in the making of inferences and drawing of conclusions. Anderson attempted to determine which method of teaching certain critical thinking skills, "doing" or "telling" was more effective. Brownell (1953) found improvement in two of five skill areas examined--ability to infer and recognition of assumptions. Jewett (1940) found positive results in judging the probable truth of inferences, distinguishing between strong and weak arguments, and formulating generalizations.

One reason for failure to show improvement in four of the critical thinking skills by the treatment groups might have been the length of the study. An average of 50 minutes a week for an eight-week period was devoted to the treatment. Most studies cited that showed significant improvement in specific critical reading or critical thinking skills spent more time on the treatment: Glaser (1941), Brembeck (1949), Brownell (1953), Waller (1963), Livingston (1965).

The testing instrument, the WGCTA, should be examined closer to determine its effectiveness in relation to this particular study. A reaction to the test by subjects might have caused a drop in posttest scores. The test might have been too difficult for the subjects, in terms of readability and test content.

The reading levels of all the subjects could not be obtained; thus, the experimenter could not determine if the test was too difficult for the subjects. The readability of the WGCTA was at the ninth-grade level.

Another reason for failure to show improvement in most of the critical thinking skills by the treatment groups might have been the effectiveness of the instructors. It was assumed by the experimenter that the instructors were familiar with most of the critical reading/thinking skills outlined. Perhaps, however, a more thorough training program for the instructors could have been conducted.

Included in the study of the five skill areas of inference, recognition of assumptions, deduction, interpretation, and evaluation of arguments was the study of propaganda devices and emotionally toned words. It was in the opinion of the experimenter that a thorough study of critical reading/thinking skills could not have been accomplished without the inclusion of these two areas. Due to the type of reading material used--the newspaper--it would have been impossible to ignore these two areas from the study. Some researchers have noted these areas as part of skills needed of a critical reader/thinker: Russell (1963), Flanigan (1966), Glaser (1941), Jewett (1940), Livingston (1963), Kottmeyer (1944). In this study, however, no attempt

was made by the experimenter to test the effectiveness of the instruction of these two skill areas.

CHAPTER V

SUMMARY AND CONCLUSIONS

This chapter summarizes the present study, draws conclusions from the research results, and suggests areas for further study.

Summary

This study was concerned with determining whether certain sections of the newspaper could be used in teaching specific critical reading/thinking skills in an adult developmental reading class. Critical thinking was defined as the correct assessment of statements. The general plan was to provide the experimental group with instruction in certain critical reading/thinking skills, with the newspaper providing the source of instructional material. A control group followed the regular class outline, but were periodically provided with newspaper articles that were used in the experimental group.

The subjects were 79 students enrolled in a developmental reading class in University College at Rutgers University. Students were drawn from the four campus sites of New Brunswick, Newark, Camden, and

Jersey City. The subjects were admitted to University College as part of the Educational Opportunity Fund.

The experimental group was given instruction in critical reading/thinking skills using the newspaper articles for a period of eight weeks for approximately 50 minutes a week. Other course objectives were followed.

The evaluative instrument was the Watson-Glaser Critical Thinking Appraisal. A total score and five subtest scores were given for this test. Six hypotheses were formulated in the null form:

1. There will be no significant difference in students' critical thinking skills between the experimental and control groups.

2. There will be no significant difference in students' ability to draw inferences between the experimental and control groups.

3. There will be no significant difference in students' ability to recognize assumptions between the experimental and control groups.

4. There will be no significant difference in students' ability to make deductions between the experimental and control groups.

5. There will be no significant difference in students' ability to make interpretations between the experimental and control groups.

6. There will be no significant difference in students' ability to evaluate arguments between the experimental and control groups.

Conclusions Regarding the Hypotheses and the Findings

The statistical analyses were concerned with comparisons of the posttest mean scores between the experimental and control groups. The *t* tests for differences between means of independent samples were used.

The results of the study were as follows:

1. There was no statistically significant difference between the experimental group and the control group in total critical thinking ability. It was concluded, therefore, that, in general, instruction using the newspaper was not effective.

2. There was no statistically significant difference between the experimental group and the control group in the areas of recognizing assumptions, making interpretations, drawing deductions, and evaluating arguments. It was concluded, therefore, that instruction using the newspaper was not effective in these four areas.

3. There was a statistically significant difference between the experimental group and control group in the area of making inferences. It was

concluded, therefore, that instruction using the newspaper was effective in this skill area.

Recommendations

1. It is suggested that a similar study be conducted using a larger population. Due to attrition, the final sample was much smaller than the original.

2. Perhaps a longer time period for the actual treatment would produce more significant results. Most studies cited were conducted for more than an eight-week period.

3. The use of another testing instrument, other than the WGCTA, is suggested. A standardized reading test that includes the examination of some critical reading skills, or a testing instrument constructed by the experimenter could be considered.

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APPENDIX A

WATSON-GLASER CRITICAL THINKING APPRAISAL

FORM ZM

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APPENDIX B

CRITICAL QUESTIONS

A good thinker, when he hears or reads certain types of materials, will immediately ask questions:

What is the intent of the writer?

What are the main arguments advanced?

Are these arguments supported by facts and reason, given or implied?

Do assumptions, hidden or otherwise, lurk behind statements?

What means of evaluation are used for facts, inferences, assumptions?

Do any obvious fallacies appear; any known methods of checking one's thinking?

Is the language that of an honest thinker, or that of a special pleader, or of a propagandist?

Are terms defined, used consistently; or does meaning shift consciously or unconsciously?

Has the writer supported his conclusion so we can give it belief, or has he failed?

APPENDIX C

PROPAGANDA DEVICES

The chief devices used in popular argument and by professional propagandists are:

Name Calling--giving an idea a bad label--is used to make us reject and condemn the idea without examining the evidence.

Glittering Generality--associating something with a "virtue word"--is used to make us accept and approve the thing without examining the evidence.

Transfer carries the authority, sanction, and prestige of something respected and revered over to something else in order to make the latter acceptable; or it carries authority, sanction, and disapproval to cause us to reject and disapprove something the propagandist would have us to reject and disapprove.

Testimonial consists in having some respected or hated person say that a given idea or program or product or person is good or bad.

Plain Folks is the method by which a speaker attempts to convince his audience that he and his ideas are good because they are "of the people," the "plain folks."

Card Stacking involves the selection and use of facts or falsehoods, illustrations or distractions, and logical or illogical statements in order to give

the best or the worst possible case for an idea, program, person, or product.

Band Wagon has as its theme, "Everybody--at least all of us--is doing it"; with it, the propagandist attempts to convince us that all members of a group to which we belong are accepting his program and that we must, therefore, follow our crowd and "jump on the band-wagon."

APPENDIX D

SEQUENCES OF ARTICLES FOR CRITICAL READING/THINKING SKILLS

Date		Articles Covered	Time Allotment
First Meeting-- Week of 1/27/75	--		--
Second Meeting-- Week of 2/3/77	a.	Administer pretest of the Watson-Glaser Critical Thinking Appraisal Form YM	Approx. 60 mins.
	b.	Distribution of sheets about Critical Questions and Propaganda Devices.	
	c.	Distribution of two articles--"Dems blamed for World War I cover-up" and "Who wants family films?" These two articles should be given as homework reading assignments. Emphasize to students that for every article read, they should attempt to write a brief summary (what is the author saying?) and apply the Critical Questions. The answers to the Critical Questions do not necessarily have to be written out--this would be somewhat time consuming.	
Third Meeting-- Week of 2/10/75	a.	Discussion of two articles--"Dems blamed . . ." and "Who wants . . . ?" Follow Lesson Outline.	30 mins.
	b.	Distribution of two articles--"More views on gambling" and "Pot laws at odds with populace." These two articles should be given as a homework reading assignment.	

SEQUENCES OF ARTICLES FOR CRITICAL READING/THINKING SKILLS--Continued

Date	Articles Covered	Time Allotment
Fourth Meeting--Week of 2/17/75	a. Discussion of two articles--"More views . . ." and "Pot laws . . ." Follow Lesson Outline.	45-60 minutes
	b. Reading in class of the article "Pro-Mulligan districts showed heaviest turnout." Follow Lesson Outline.	
	c. Distribution of two articles for a homework reading assignment: "Prime problem" and "Gas tax idea wins laughs." For the article "Gas tax idea wins laughs" have students be ready to name words and phrases with emotional overtones.	
Fifth Meeting--Week of 2/24/75	a. Discussion of two articles "Prime Problem" and "Gas tax idea wins laughs." Follow Lesson Outline.	40 mins.
	b. As an introduction to connotation, the study sheet on connotation may be used. (At this point, connotation and denotation have probably been discussed by the instructor--the study sheet is merely an optional activity.)	
	c. Distribution of two articles for a homework reading assignment: "Atlantic City and casino gambling" and "'Sick' American's letter lauded." For "'Sick' American's letter	

SEQUENCES OF ARTICLES FOR CRITICAL READING/THINKING SKILLS--Continued

Date		Articles Covered	Time Allotment
Fifth Meeting--continued		lauded" have students be ready to name words and phrases with emotional overtones.	
Sixth Meeting--Week of 3/3/75	a.	Discussion of two articles: "Atlantic City . . ." and "'Sick' American . . ." Follow Lesson Outline.	40 mins.
	b.	Distribution of two articles for a homework reading assignment: "Black-white theme underscores mayor race" and "It's a man's world now, population data shows."	
Seventh Meeting--Week of 3/10/75	a.	Discussion of "Black-white theme . . ." and "It's a man's . . ." Follow Lesson Outline.	30 mins.
	b.	Distribution of two articles for a homework reading assignment: "Good and bad trends in civil rights" and "Legislature takes on Ronan." Note in the Lesson Outline for "Legislature takes on Ronan" that there is a suggestion that certain definition of words be found in a dictionary to determine connotation.	
Eighth Meeting--Week of 3/17/75	a.	Discussion of "Good and bad . . ." and "Legislature takes . . ." Follow Lesson Outline.	30 mins.

SEQUENCES OF ARTICLES FOR CRITICAL READING/THINKING SKILLS--Continued

Date		Articles Covered	Time Allotment
Eighth Meeting--continued	b.	Distribution of two articles for a homework assignment: "Foreign goods hurt U.S. jobs" and "Bova no Bert Lahr in lead role--but he fits '74 bill."	
Ninth Meeting--Week of 3/31/75	a.	Discussion of "Foreign goods . . ." and "Bova no Bert Lahr . . ." Follow Lesson Outline.	30 mins.
	b.	Distribution of "UN Muzzles Israelis in Palestinian debate" and "'Experiments' fail in schools" for homework reading assignment.	
Tenth Meeting--Week of 4/7/75	a.	Discussion of "UN Muzzles Israelis . . ." and "'Experiments' fail . . ." Follow Lesson Outline.	60 mins.
	b.	Review the various skill areas covered in the newspaper readings.	
Eleventh Meeting--Week of 4/14/75	a.	Administer Posttest of the Watson-Glaser Critical Thinking Appraisal Form ZM. I will be present in class for the posttesting.	60 mins.

APPENDIX E

SAMPLE NEWSPAPER ARTICLES AND

LESSON OUTLINES

"ATLANTIC CITY AND CASINO GAMBLING"

To the editor:

The Citizens Advisory Board of Atlantic City reflects the feelings of average citizens throughout our city on a day-to-day basis. We share their happy moments, we caress their disappointments and we empathize with their problems.

One of the problems that we have lived with for too long a period of time is the uncertainty of unemployment. New Jersey's rate of unemployment. New Jersey's rate of unemployment at 8 percent is 3 percent higher than the national average and you can imagine the hardships imposed on our people when we have only a three-month tourist season. Our incidence of unemployment and welfare activity is the highest in the county and one of the highest in the state.

Casino gambling, as described in Question 1 on the ballot for Nov. 5, has given our people a purpose for living. Human dignity is at our doorstep. The exuberance of steady employment awaits us. And the nicest part of providing a more complete tourist package for our visitors through casino gambling is that we will be helping the rest of New Jersey.

That is right, an expanded economic base through new construction and investment capital means better tourist attractions. And, of course, that means more money for our state treasury which will ultimately help every taxpayer in New Jersey.

You can be sure that, even though you may never make use of our lovely beaches, or walk our world-famous Boardwalk, or get a chance to spin the roulette wheel, we will be working hard to see that everyone in New Jersey gets a piece of the action.

Patrick Fitzgerald, Chairman
Citizens Advisory Board,
Atlantic City

Home News, Tuesday,
October 29, 1974, p. 18.

LESSON OUTLINE: Letters to the Editor of the Home News, "Atlantic City and casino gambling," Tuesday, October 29, 1974, p. 18

Content and Procedure

A. Summary of the article. The writer cites several reasons for the adoption of casino gambling in Atlantic City, New Jersey: (1) increase employment opportunity for residents, (2) more money for state treasury, (3) benefit every taxpayer through more money in treasury.

B. Apply critical questions to the article.

C. Critical reading/thinking analysis. Two areas should be examined in this article.

1. Explicit Assumption

a. Review definition of an assumption--an assumption is anything treated as true without examination. In this particular article, the writer states specifically several assumptions. These are considered explicit assumptions.

b. Ask students if any assumptions have been made by the writer--yes--should note the following:

1) The letter writer assumes that through new construction and investment capital a new attraction for tourists will be realized; and the tourists will bring more money. The assumption is probably a valid one.

2) The letter writer further assumes that this money secured from tourists will be realized to all taxpayers. The assumption is probably true but rather unlikely that the tourist industry alone could be of that much assistance to the state of New Jersey.

2. Errors and Fallacies in Thinking

a. The errors and fallacies to be covered are those in deductive reasoning. Deductive

errors are drawing inferences which are not justified by the assumptions or generalizations.

b. Present examples of Appeal to Pity--appeal to sympathies, feelings, pity, instead of a more cogent argument.

1) "We share their ('average citizens throughout Atlantic City') disappointments and we empathize with their problems."

2) ". . . and you can imagine the hardships imposed on our people when we have only a three-month tourist season."

"BLACK-WHITE THEME UNDERSCORES MAYOR RACE"

By Warren Sloat

NEW BRUNSWICK--Race is not an issue in this campaign for mayor, but it is a fact.

Black-and-white runs like a theme through the debates and discussions about the future of the city, school regionalization and crime statistics, and the question it shapes is this:

Can Mayor Aldrage Cooper become the first black to be elected mayor of this predominantly white New Jersey City?

Kenneth Gibson was elected mayor of Newark, and reelected this year, but race was a distinct issue in those campaigns and the city has a black majority. The other most conspicuous black mayor, William Hart of East Orange, is also in a black-dominated municipality.

Race appeared to be on the voters' mind in Plainfield last year when Paul O'Keeffe, a white, defeated Richard Rountree, a black.

Blacks are a minority in Plainfield, but a much larger minority than in this city, and Rountree was defeated despite a standard political campaign as the Democratic organization candidate.

"If there's anything that will beat him," one Cooper supporter said, "It's the race thing. I have met a number of people who've told me, 'I like Cooper, I have nothing against him, but I can't bring myself to vote for a black man.'"

The electorate did not have similar misgivings, however, about voting him to the city council on two occasions. (He became mayor by appointment this year when Patricia Sheehan left to take a state cabinet post.)

A victory for Cooper in a city only one-quarter black would represent a personal triumph for him and a vote of confidence in the administration that has guided the city for seven years.

Richard J. Mulligan, the 31-year-old former city judge who is Cooper's most formidable opponent, has challenged him with a tack different from the recent course of American municipal politics.

"BLACK-WHITE THEME UNDERSCORES MAYOR RACE"

Mulligan, who is ideologically rather similar to Cooper, has not run as the white man. Instead, he has been making a concentrated effort to win a sizable number of the city's black voters.

Although he has been chided for not having any black candidates on the slate for council seats, Mulligan has been through black neighborhoods (sic), visiting taverns and social center.

One of his black supporters is Gilbert Nelson Jr., a former law partner, who said he thinks Mulligan will get a "substantial" black vote, although he said Cooper should pull about 75 percent.

Guy Williams, a black independent candidate for the council, says he has found an almost even split in black areas for Mulligan and Cooper, but noted he is dealing mostly with politically active people.

"I would think that most of my congregation is with Mayor Cooper," said the Rev. Henry Hilderbrand, pastor of the Mt. Zion A.M.E. Church, of which Cooper is a member and of which his grandfather was pastor.

Mr. Hilderbrand said he thinks Cooper has most of the black vote but added, "black people have come to be rather sophisticated about voting and tend to vote according to their belief in the individual."

C. Roy Epps, executive director of the Greater New Brunswick Urban League, said he thinks some blacks have left the traditional Democratic party ties and have been turned off by evidence of political corruption.

Nevertheless, most people are estimating that, as usual, about half the registered blacks will vote and that Cooper will get most of the votes.

The Cooper forces believe they would lose votes if race were to become a campaign issue and were made nervous last week when racial difficulties broke out again, as they have so often in the past, at New Brunswick High School.

* * *

Cooper is not running as the black candidate, but as the Democrat. To many on the Rutgers campus he

"BLACK-WHITE THEME UNDERSCORES MAYOR RACE"

represents the establishment. A number of the questions at a Student Government Association mayoral debate last week were anti-establishment in content and intent.

Bruce Newling, the British-born candidate for mayor, has been regarded as a second white candidate who will take votes from Mulligan. He also stands, however, to take Rutgers votes away from Cooper. Newling has appeal on the Rutgers campus as a planner with new ideas.

As the Democratic candidate, Cooper is in line for the job. He has been helpful and loyal to Middlesex County's powerful Democratic organization.

He also has the ties--to Newark Mayor Gibson, to Washington (including Massachusetts Sen. Edward Brooke) and to Assembly Speaker S. Howard Woodson.

"Nobody can do more for the city in Trenton or Washington than Al Cooper." said David Harris, administrator of the Greater New Brunswick Day Care Council. "If a black with Mulligan's qualifications ran against a white with Cooper's, there would be no contest."

* * *

As Mulligan has kept up his drive to take a significant portion of the black vote, the charge has been made that it represents that portion of the ghetto community formerly involved in the numbers.

"I'm willing to speak frankly about Mulligan's black support," Harris said. "Dick Mulligan has made the serious blunder of promising to fire Police Director (John) O'Brien." When this was mentioned at a recent candidates' night," he said, "the loudest applause came from people who were kicked out of the numbers business by O'Brien."

Harris said if he were mayor he would get rid of O'Brien, too, but with honor. He said he would make it clear the director had done his job and was now moving on.

Mulligan, he said, has not made it clear that O'Brien's departure will not mean a return to the old days in the city. "Now he would have to get rid of him," he said, "and the people who would be putting pressure on him to replace him would mean that the old guard would be back."

"BLACK-WHITE THEME UNDERSCORES MAYOR RACE"

Mulligan said his law practice in the past has been criminal cases and he has defended a number of people accused of illegal gambling.

He says he also had dealt with gamblers as a municipal judge, and he may have some of their votes because of his bench record of being "tough but fair."

* * *

Whether or not Cooper's color is going to influence many votes remains to be seen.

Mulligan says he has heard "a few" racial slurs from whites as he has campaigned. The race business is complex enough so Mulligan was, if possible, more unhappy than Cooper when the mayor was insulted by a caller over WCTC last week as an "arrogant nigger."

Mrs. Eleanor Stillwell, running independently as a council candidate, said she has heard almost no derogatory comments about Cooper's race during her campaigning.

"There would be a racial issue if there were only one white candidate in the race," Newling contends. "That's why it's a good thing to have several whites in it."

Home News, Tuesday, October 29, 1974;
p. 1, continued on p. 3.

LESSON OUTLINE: "Black-white theme underscores mayor race," Home News, Tuesday, October 29, 1974, p. 1

Content and Procedure

A. Summary of the article. The author contends that the black-white theme is an obvious factor in the mayoral race in New Brunswick, New Jersey.

B. Apply critical questions to the article.

C. Critical reading/thinking analysis. One skill area should be examined for this article.

1. Interpretation

a. Review briefly what is meant by interpretation of a reading selection. The information in the article must first be considered true. From the article then certain conclusions may be proposed. The problem for the student to determine whether or not each of the proposed conclusions logically follows beyond a reasonable doubt from the information given in the article. Questions concerning the article will be posed and then converted into statements. The students must decide if the statement is true (follows) or false (does not follow) based on information presented in the article.

b. Examples of interpretation

1) Is the outcome of the election based solely on the voting support of the blacks in New Brunswick? (No)

The outcome of the election will be determined by blacks in New Brunswick. (Does not follow.) One cannot accurately determine this. Blacks constitute only one-quarter of the city population, and not all of them are registered voters. Even if all of the registered black voters cast their votes for either Cooper or Mulligan, this would not necessarily mean that their votes were the decisive ones.

2) Is Aldrage B. Cooper's color a question in this campaign? (Yes)

Cooper is viewed by most as a black candidate, not a Democratic candidate. (Follows.) This was stated in the article. His color is seen first and his political party seen second.

APPENDIX F

CRITICAL READING/THINKING SKILLS TAUGHT IN EACH NEWSPAPER ARTICLE

Inference:

"Prime problem"
"Pro-Mulligan districts showed heaviest turn out"
"'Experiments' fail in schools"
"UN muzzles Israelis in Palestinian debate"

Recognition of Assumptions:

"Atlantic City and casino gambling"
"Gas tax idea wins laughs"
"'Sick' American's letter lauded"
"More views on gambling"
"Foreign goods hurt U.S. jobs"

Deduction--Errors and Fallacies:

"Atlantic City and casino gambling"
"Legislature takes on Ronan"
"More views on gambling"
"Foreign goods hurt U.S. jobs"
"'Experiments' fail in schools"

Interpretation:

"It's a man's world now, population data shows"
"Black-white theme underscores mayor race"
"Pro-Mulligan districts showed heaviest turn out"

Evaluation of Arguments:

"Who wants family films?"
"Good and bad trends in civil rights"
"Bova no Bert Lahr in lead role--but he fails '74 bill"

Propaganda Devices:

"Pot laws at odds with the populace"
"'Sick' American's letter lauded"
"More views on gambling"
"'Experiments' fail in schools"

Emotionally Toned Words:

"Gas tax idea wins laughs"
"Pot laws at odds with the populace"
"'Sick' American's letter lauded"
"Legislature takes on Ronan"
"Good and bad trends in civil rights"
"UN muzzles Israelis in Palestinian debate"